River Management Plan

GULKANA RIVER

A component of the National Wild and Scenic Rivers System

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ANCHORAGE DISTRICT, ALASKA

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River Management Plan

for the

Gulkana National Wild River

U.S. Department of the Interior
Bureau of Land Management
Anchorage District, Alaska

Recommended by: Wayne A. Boden — Oct. 7, 1983

ANCHORAGE DISTRICT MANAGER — DATE

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ALASKA STATE DIRECTOR — DATE

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PART I - INTRODUCTION

Background

The Alaska National Interest Conservation Act of December 2, 1980, (ANILCA, P.L. 96-487) established the upper portion of the Gulkana River, including the Middle Fork and West Fork, as a component of the National Wild and Scenic Rivers System to be administered by the Secretary of the Interior through the Bureau of Land Management (BLM). Subject to valid existing rights, the Alaska National Interest Lands Conservation Act (ANILCA) classified and designated approximately 181 miles of the Gulkana River system as a "wild" river pursuant to the Wild and Scenic Rivers Act (WSRA, P.L. 90-542).

The Wild and Scenic Rivers Act declared it a policy of the United States that "selected rivers of the nation which, with their immediate environment, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be protected in free flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations."

Specifically, Section 10(A) of the Wild and Scenic River Act states that:

> Each component of the National Wild and Scenic Rivers System shall be administered in such a manner as to protect and enhance the values which caused it to be included in said system without, insofar as it is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values...

By classifying the Gulkana River as "wild," Congress mandated that it shall be managed to be "free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted...representing vestiges of primitive America."

ANILCA also directed the Secretary of the Interior to establish detailed boundaries, prepare a management and development plan, and present this information to Congress by December 2, 1983. In response to these directives, this river management plan establishes the detailed boundaries and develops the management policies for the Gulkana National Wild River.

The Bureau of Land Management intends that these management policies be flexible in order to remain responsive to future management needs while at the same time serving as a standard to assure the protection of the river's resources from possible future changes in resource quality and use.

An Environmental Impact Statement (EIS) for the proposed Gulkana National Wild River, "A Proposal for Protection of Eleven Alaskan Rivers," was approved by the Department of the Interior in 1980. The EIS addressed the impact of designating a portion of the Gulkana River as a component of the National Wild and Scenic Rivers System.

In addition, this plan has been developed in compliance with Title VIII of ANILCA so that the management policies will cause the least possible adverse impact to the local residents who depend upon the river corridor for subsistence needs.

The Setting

The Gulkana River, located in Southcentral Alaska about 200 road miles east of Anchorage, heads at an elevation of 3,210 feet at Summit Lake in the Alaska Range (see figure 1). From there it flows south to Paxson Lake and then south to its confluence with the Copper River. The Copper River flows into Prince William Sound near Cordova.

The watershed of the Gulkana drains approximately 2,140 square miles. The average annual daily discharge is about 1,200 cubic feet per second. Summer flows are three to four times this amount while winter flows are about 200 to 300 cubic feet per second. Elevation at Paxson Lake is about 2,550 feet. From this point the drainage falls 1,250 feet in 81 miles for an average gradient of 15.4 feet per mile. An 8 mile stretch within this section of the river has a gradient of about 50 feet per mile.

Major tributaries of the Gulkana River are the Middle Fork and the West Fork. The Middle Fork drains most of the north slopes of the Alphabet Hills, flows through Dickey Lake, and joins the Gulkana River three miles downstream from Paxson Lake. The West Fork starts in several lakes south of the Alphabet Hills, about 50 miles northwest of Sourdough, and joins the Gulkana River about 8 miles above Sourdough (see figure 2).

In the vicinity of the Gulkana River, the topography varies from the rolling valleys and low ridges of the Gulkana upland to the relatively flat ancient glacial lakebed of the Copper River lowlands. Several hundred lakes and ponds add variety and interest to the spruce-dominated forest. Paxson Lake, the largest of these lakes, was formed when the moraine of an ancient glacier dammed a formerly ice-filled valley. This lake is about 10 miles long and one-half to one mile wide. The Middle Fork Gulkana River flows through a series of glacial moraines and bedrock areas as it leaves the base of the Alaska Range and runs into the rolling forested uplands at its confluence with the Gulkana River. The West Fork flows through the rolling hills of the Copper River lowlands.

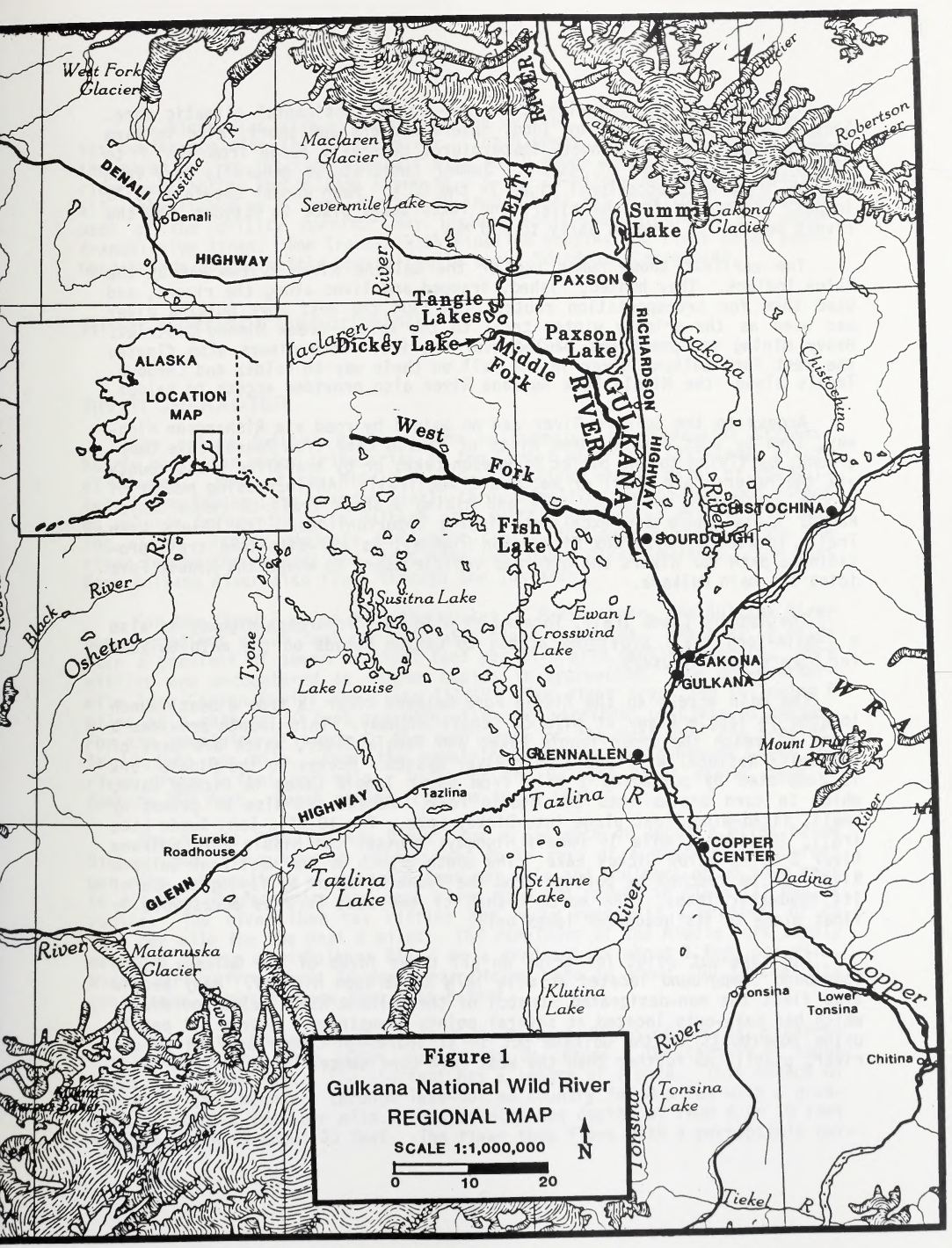

Figure 1
Gulkana National Wild River
REGIONAL MAP
SCALE 1:1,000,000
0 10 20
N

This area is located within the sub-arctic continental climatic zone. Seasons are characterized by long, severe winters and short, mild to warm summers. December and January temperatures generally range from -15° F to -30° F with an extreme of -60° F. Summer temperatures generally vary from 35° to 70° F with occasional highs in the 80's. Mean annual snowfall is 70 inches. Freeze-up for the rivers and lakes takes place in October, and the rivers become ice free in early to mid May.

The earliest known human use of the Gulkana River system was by the Ahtna Indians. They hunted, fished, trapped and lived along the rivers, and used them for transportation routes. In 1904 the West Fork Gulkana River was used as the primary winter trail to the Valdez Creek Mining District. Heavy mining equipment was hauled over the ice. Some miners also floated the West Fork Gulkana River in the fall on their way to Valdez and Cordova. Trails along the Middle Fork Gulkana River also provided access to Valdez.

Access to the Gulkana River can be gained by road via Richardson Highway, then by boat across three miles of Paxson Lake from Paxson Lake Campground; by flying to the outlet of Paxson Lake; or by traveling cross county via the Meiers Lake Trail or Haggard Creek Trail. An increasing number of people are flying to Canyon Lake and hiking a short trail to reach Canyon Rapids where there are excellent fishing opportunities. The Meiers Lake Trail, located at mile 169 Richardson Highway, is a 7-mile-long trail providing a path for hikers and off-road vehicle users to where the Middle Fork joins the main Gulkana.

The Haggard Creek Trail, located at mile 161 Richardson Highway is also a 7-mile-long trail providing access to Canyon Rapids on the main Gulkana for hikers and ORV users.

The main access to the Middle Fork Gulkana River is from a boat launch located in Tangle River at mile 22 Denali Highway. This launch provides a means to reach the upper Tangle Lakes and Tangle River, which are part of the Delta National Wild and Scenic River system. Access to the Middle Fork is completed by portaging 1 mile from upper Tangle Lakes to Dickey Lake, which in turn drains into the Middle Fork. Access can also be gained by small, fixed-wing float plane into Dickey Lake. The 10-mile-long Swede Lake Trail, located at mile 16 Denali Highway, crosses the Middle Fork Gulkana River 8 miles below Dickey Lake. The south branch of the West Fork Gulkana River can be reached by portage from the Tyone River or by flying to one of its headwater lakes. The north branch of the West Fork is accessible by float plane to its headwater lakes only.

The take-out point for trips on all three forks of the Gulkana is at Sourdough Campground located at mile 147½ Richardson Highway. Many people also float the non-designated stretch of the Gulkana River below Sourdough, which has take-outs located at several points downstream. Nearly all people using powerboats on the Gulkana put in at Sourdough Campground and go upriver, usually no further than the West Fork confluence.

The Richardson Highway parallels the Gulkana River from Paxson Lake to its confluence with the Copper River. The highway is visually removed from the river by its location one-half mile to 10 miles away. The utility corridor paralleling the Gulkana River is a 6- to 18-mile-wide corridor originally established as a route for the 48-inch Alaska oil pipeline. Subsequent uses of the utility corridor may include additional pipelines and power transmission lines. The Trans-Alaska Pipeline crosses the river on an overhead bridge approximately one-half mile above Sourdough Campground.

River Corridor Description

RIVER CHARACTER

The entire Gulkana River system is composed of clearwater streams. Nearly all other major tributaries to the Copper River are silt-laden glacial streams. Much of the Middle Fork Gulkana River and 15 miles of the Gulkana below Paxson Lake meander gently through rolling spruce-hardwood forested uplands before the main Gulkana cuts swiftly through an east-west trending ridge. Rapids dominate the water course for over 8 miles before the river leaves the uplands and flows into the Copper River lowlands. The West Fork Gulkana River also flows through the lowlands.

For the first 3 miles from the outlet of Paxson Lake, the Gulkana River has a gradient of 38 feet per mile with class II rapids. The next 16 miles have a gradient of seven to eight feet per mile with gentle meanders. More riffles are encountered as Canyon Rapids is approached. The one-quarter-mile long Canyon Rapids are class III/IV. The river drops the following 8 miles at a rate of 50 feet per mile with many stretches of class II rapids. For the remaining distance to the confluence of the West Fork the gradient is 10 feet per mile. Over the remaining distance to Sourdough Creek the river drops 5 feet per mile. Width of the Gulkana River varies from 40 feet to 250 feet. Depth ranges from one to 10 feet.

The Middle Fork Gulkana River, for a distance of about 3 miles below Dickey Lake, flows through riffles and rocky runs at a gradient of 30 feet per mile. A gradient of over 100 feet per mile and boulders of up to 8 feet in diameter characterize the next river mile and result in class III and IV rapids. The river then has riffles and rocky runs with a gradient of 25 feet per mile for the next 6 miles. The remainder of the Middle Fork slowly meanders to the main Gulkana River at a gradient of about 1 foot per mile. Width varies from about 30 feet near Dickey Lake to about 100 feet at its confluence. Depths range from 1 to 8 feet.

The south branch of the West Fork Gulkana River begins as a narrow stream connecting three lakes, but it can be canoed. The largest of these lakes is 2 miles long. The shortest has a length of 1 mile. This branch of the river then meanders through lake-dotted country for 8 miles with a gradient of about 2 feet per mile. This stretch has depths of from 4 to 10 feet and the width is about 30 feet. The river then flows with a perceptible cur-

rent through a very shallow mile-long lake. The first 5 miles below this lake are slow, with river depths up to 8 feet. From this point to its confluence with the north branch of the West Fork Gulkana River, the south branch has a gradient of about 15 feet per mile with several riffles and rocky runs.

The north branch of the West Fork Gulkana River heads in two unnamed lakes which are about 3 miles apart. Each lake is about 1½ miles long and has its own small discharge stream. These streams join about 2 miles downstream from the northernmost of those lakes. The north branch has a varied gradient from 3 to 60 feet per mile along its 30-mile length.

From the confluence of the north and south branches, the West Fork Gulkana River flows slowly for 4 miles. It then enters a canyon where it speeds through riffles and around large boulders up to 4 feet in diameter. The remainder of the West Fork flows in a series of riffles and slow runs. Bottom composition is a varying mixture of rock, sand, silt, and mud. Width of the West Fork varies from about 5 feet near its headwaters to 110 feet where it joins the Gulkana River. Depths range from 1 foot to 8 feet.

The most serious hazard encountered by people who use this area is swift water flowing over and around large rocks. Rocks in the Gulkana River, especially at Canyon Rapids, have been the undoing of many river travelers. Upsetting a rivercraft in such a swift, rocky stream can result in the destruction of that craft and a long hike out. Sweepers, trees leaning across the river, are also a common cause of boating accidents.

Most powerboating on the Gulkana occurs between the West Fork confluence and Sourdough Campground, primarily during the red and king salmon runs. These salmon runs bring approximately 1,200 fishermen and 400 powerboats to a short stretch of the river in a 6-week period. Such use is increasing each year as this highway accessible river becomes better known.

FISH and WILDLIFE

Eleven species of fish are known to inhabit the Gulkana River. King salmon, red salmon, rainbow trout-steelhead, lake trout, grayling, whitefish, burbot, and suckers are taken by fishermen. Heaviest use of the river by fishermen occurs from mid-June through July when salmon are ascending the river.

Wildlife along the Gulkana River is important for the recreation it provides hunters, photographers and others who enjoy viewing wildlife, and for the income it provides trappers. Subsistence use of fish, furbearers, big game, and small game is also important. Hunters concentrate on taking moose, caribou, black bear, and grizzly bear. Animals trapped include wolves, martens, wolverines, otters, weasels, minks, foxes, coyotes, lynx, beavers, and muskrats. Porcupine, snowshoe hare, squirrels, shrews, voles, and lemmings are also among the 33 species of mammals known to live along the Gulkana River.

Many people floating the river enjoy seeing and photographing the many eagles and eagle nests found in trees along the river. Other birds sighted from the river include swans, ducks, geese, loons, hawks, owls, grouse, jays, thrushes, waxwings, warblers, sparrows, fly catchers, and others. So far, 59 species of birds have been seen from the river. However, many more species are thought to be in the area.

SCENERY and VEGETATION

Scenery along the Gulkana River system is subdued but wild. Spectacular mountains and glaciers are not close to the river, although they can occasionally be seen. Rather than presenting wide panoramas of scenic beauty from horizon to horizon, the Gulkana River system offers viewers and photographers opportunities to observe and photograph at close range many aspects of nature; wild flowers, a variety of birds, and some animals are all present in abundance. The viewer has a chance to become almost a part of what he is viewing --a mirror calm oxbow bend in the river; a magenta stand of fireweed; a pothole lake with its families of waterfowl, beaver and muskrats; a cow moose and her spindly-legged calf poised on a sandbar; a stately spruce where a pair of eagles feed their young in a decades-old nest; and countless other close scenes that are vestiges of primitive America.

Three major vegetation types occur along the Gulkana River system. The most prominent is the upland spruce-hardwood forest found at the higher elevations. This group includes white spruce, birch, aspen, and poplar with an understory of willow, alder, rose, lowbush cranberry, raspberry, horsetails, and other small plants. Lowland spruce-hardwood forest occupies the middle elevations. This forest consists of black spruce, white spruce, birch, aspen, and poplar. Undergrowth species include willow, dwarf birch, lowbush cranberry, blueberry, Labrador tea, crowberry, grasses, horsetails, mosses, and other plants. Low elevations have a bottomland spruce-poplar forest composed mostly of white spruce and cottonwood with a mixed understory of alder, willow, rose, dwarf dogwood, Labrador tea, various berries, fireweed, horsetails, lichens, herbs and mosses.

Timber suitable for house logs and firewood can be found in these forests along the river, but it is not considered economically suitable for commercial harvest.

MINERALS

There are seven placer mining claims located on an unnamed tributary of the Middle Fork Gulkana River, 7 miles below Dickey Lake, within the wild river boundaries. Several thousands of acres have been leased for oil and gas within the Gulkana River drainage but outside of the wild river boundaries.

Although some sampling and exploratory work has occurred, these claims and leases have not been developed.

Only very small quantities of gold have been found in the Gulkana River drainage. Past efforts to extract this gold were abandoned because the work was not profitable. The West Fork and the lower portion of the Gulkana River extend into the low potential petroleum province underlying the Copper Basin. A low quality coal field, covering about 120 square miles, lies about 5 miles south of the West Fork.

CULTURAL VALUES

The first 10 miles of the Middle Fork Gulkana River below Dickey Lake are within the Tangle Lakes Archeological District, which is listed on the National Register of Historic Places. Several known prehistoric archeological sites are located within the designated wild river area. Other sites are expected to exist within this area. Cultural resources of the historic period include several cabins, cabin sites, trails, and parts of freighting sleds associated with the time, around 1910, when the West Fork and Middle Fork were routes used to reach the Denali Mining District about 80 miles west of this area.

OTHER VALUES and USE OPPORTUNITIES

Opportunities for camping along the river are abundant. The most favorable hiking areas are along the Middle Fork, where vegetation is relatively sparse and the soil is well drained. Trails to or along other sections of the Gulkana River have been developed for winter use. They are often very muddy in the summer. Most hiking off the trails is difficult because of many areas of thick black spruce forest or wet bogs.

Paxson Lake Campground at mile 175 Richardson Highway has a 500-foot long boardwalk to Paxson Lake that floaters use to gain access to the Gulkana River. This campgound has 20 campsites with tables and firepits, two toilets, and a small parking area for the river users. Sourdough Campground, which is located on State land, has a boat launch and parking area for boaters, 20 campsites with tables and firepits, and two toilets.

In September 1963, the owner of the Sourdough Roadhouse, a private facility located on the river, reported that 12 hunting and fishing trips had been made that summer down the Gulkana River from Paxson Lake to Sourdough. This use increased to about 400 people by 1972. A nearly 100 percent sample of river use in 1979 revealed that 1,455 persons floated the Gulkana River in that year. In 1981 it was estimated that 3,600 people floated or powerboated on the river, accounting for over 13,000 user days, between June 6 and

August 30. This is a substantial increase in use, and indications are that this trend will continue as both the population of the state and tourism expand. Many other people hike to the river, use off-road vehicles for access, or fly to headwater lakes or Canyon Lake to get to the river.

Trapping is the primary winter use of the Gulkana River and is the most important subsistence use. Other subsistence use includes the taking of moose, caribou, fish, and small game. Subsistence use of the Gulkana River is light in comparison to other uses.

Boundary Determination

LEGISLATIVE CONTROLS

ANILCA classified and designated that, subject to valid existing rights, the Gulkana River from the outlet at Paxson Lake in Township 12 North, Range 2 West, Section 4, Copper River Meridian to Sourdough Creek in Township 9 North, Range 2 West, Section 36, Copper River Meridian; the Middle Fork Gulkana River from the outlet at Dickey Lake in Township 13 North, Range 5 West, Section 12, Copper River Meridian, to its confluence with the Gulkana River in Township 12 North, Range 2 West, Section 6, Copper River Meridian; and the entire West Fork Gulkana River including the north branch from the outlets of unnamed lakes in Township 11 North, Range 8 West, Sections, 10 and 24, Copper River Meridian and the south branch from the outlet of an unnamed lake in Township 10 North, Range 7 West, Sections 10 and 15, Copper River Meridian to the confluence with the Gulkana River in Township 9 North, Range 2 West, Section 8, Copper River Meridian, is to be administered as a "wild" river pursuant to the Wild and Scenic Rivers Act, (WSRA) (see map Part IV, Appendix).

ANILCA further amended the WSRA to authorize the establishment of a river corridor boundary which may include up to an average of 640 acres per river mile for all designated National Wild and Scenic Rivers in Alaska. The boundary of this corridor may not include any lands owned by the State or a political subdivision of the State, nor may the boundary extend around any private lands adjoining the river in such a manner as to surround or effectively surround such private lands.

BLM POLICY

For the purpose of preparing a detailed boundary for the Gulkana National Wild River corridor, the following policies were applied:

- The acreage limitation for the river corridor has been measured outward from the ordinary high water mark along the shoreline and does not include either islands in the river or the riverbed.

Tangle Lakes

Swede Lake Trail

Dickey Lake

Middle Fork

Start-Middle Fork 0

MINING CLAIMS

TANGLE LAKES ARCHAEOLOGICAL DISTRICT

Middle Fork Trail

End-Middle Fork 32

3

Start-Gulkana Wild River 0

Paxson Lake

PAXSON LAKE CAMPGROUND AND PUT-IN FOR GULKANA RIVER

RICHARDSON HIGHWAY

UTILITY CORRIDOR

Meier Lake and Trail

Meier Ridge

Mountain

T12N

T11N

STATE SELECTION

Gulkana River

20

CANYON RAPIDS & PORTAGE

TRANS-ALASKA PIPELINE

Haggard Creek Trail

0 Start-North Branch

North Branch

30 End-North Branch

24 End-South Branch

South Branch

West Fork

STATE SELECTION

STATE SELECTION

UTILITY CORRIDOR

Start-South Branch 0

SOURDOUGH CAMPGROUNDS & TAKE-OUT

72

End-West Fork

39

Fish Lake

SOURDOUGH

End-Gulkana Wild River 47

STATE SELECTION

NATIVE SELECTED LAND

R3W R2W

Figure 2

RIVER CORRIDOR MAP

GULKANA
Wild River Corridor Boundary

River Miles

Private Land

N

ALASKA

SCALE 1:250000

0 5 10 15 MILES

0 5 10 15 KILOMETER

- Those portions of the Gulkana National Wild River which in their natural and ordinary condition were used or were capable of being used as a "highway of commerce" as of Alaska Statehood in 1959 are considered navigable for title purposes. For those portions determined to be navigable, the State of Alaska retains ownership of the riverbed between ordinary high water marks, and such lands are not included within the boundary of the river corridor.

- The lower section of the Gulkana River from its confluence with the Copper River upstream to Sourdough has been determined by BLM to be non-navigable. Based on that determination, this plan has been developed on the premise that the Gulkana National Wild River is non-navigable and the riverbed between ordinary high water marks is included in the river corridor boundary. The State of Alaska is challenging this determination in the courts; therefore, any management policies related to this issue are subject to change. If the river is subsequently determined to be navigable, the land in question belongs to the State of Alaska and will be excluded from the final boundary of the river corridor.

- While islands in the river are not used to determine the total acreage, for the navigable section of the river, islands which are stable, vegetated, and not subject to flooding are included within the boundary. All islands in the nonnavigable section of the river are also included in the boundary.

- A review of State land selections and Federal mining claims has been made. If current BLM land records identify a land parcel as non-Federal or identify a prior right which will result in the transfer of a land parcel from Federal ownership, these parcels and their traditional access routes are excluded from the river corridor boundary. Examples of such prior rights are State and Native selections, settlement claims, and Native allotments.

- Under this river management plan and consistent with regulations found in Title 43 of the Code of Federal Regulations, Subpart 3809 (43 CFR 3809), reasonable access will be provided for miners to reach properly located and maintained claims. Inclusion of mining claims within the river corridor boundary of the Gulkana National Wild River should not be construed as being an administrative action challenging the rights of claim holders under the U.S. Mining Laws. Lands within one-half mile of the bank of any Alaskan river designated a wild river have been withdrawn, subject to valid existing rights, from all forms of appropriation under the mining laws and the mineral leasing laws by Section 606 of ANILCA. When mineral patent has been applied for and requirements for patent met, the rights will be patented and reasonable access to enjoy those rights will be provided in accord with Section 9(a)(ii) of the WSRA, (16 U.S.C. 1280 (A)(ii).

- Should any privately claimed or State-selected lands not pass from Federal ownership, these lands and their access routes will be encompassed by the adjacent river corridor boundary so long as such inclusions do not exceed the acreage limitations contained in Section 103(b) of ANILCA.

- Where private lands are adjoining, they will be excluded from the river corridor by a common external boundary, and access will be provided to the entire block of private land via the most commonly used route.

- All non-Federal interests and their access routes have been identified on the maps appended to this report.

- Federal lands within the protracted survey sections and which are wholly or in part within 1 mile of the bank of the Gulkana National Wild River were withdrawn from all forms of appropriation under the public land laws, and from location and entry under the mining laws, and from leasing under the mineral leasing laws (Public Land Order 5179, as amended). It is proposed by this plan that this Public Land Order be modified to describe only those lands included within the final boundary of the wild river corridor and that the Land Order be revoked for those lands not included within this boundary. This proposal in combination with the one-half mile withdrawal established by section 606 of ANILCA will maintain the withdrawal of all Federal lands within the final river corridor boundary.

ADDITIONAL CONSIDERATIONS

In addition to being affected by legislative controls and BLM policies, the boundary was adjusted to protect important resource values such as crucial wildlife habitat and the historic trails that parallel the Middle Fork Gulkana River and the West Fork Gulkana River. Boundaries were drawn to include as much of the most frequently used land areas as possible. Significant lakes such as Canyon Lake were included if it was reasonable to do so. The corridor is widest around the confluence of the West Fork with the Gulkana River. This was done to prevent a long, narrow strip of undesignated land between these rivers where they run approximately parallel for about six miles. The boundaries were also drawn to exclude much of the utility corridor.

The boundary was then further adjusted to follow protracted survey section lines (minimum 40-acre parcels) whenever possible in order to simplify the legal description of the boundary. Therefore, based on the designated beginning and ending points and on the legislative controls, policies and considerations described in the preceding discussion, the acreage contained within the Gulkana Wild River corridor boundary is approximately 91,000 acres.

For further information on the boundary, see the legal description and the detailed maps in the appendix of this report.

PART II - MANAGEMENT CONSIDERATIONS

Many factors have to be considered in the development of "Part III, The Management Program." This section (Part II) is designed to present information gathered from the general public, the final E.I.S. ("A Proposal for Protection of Eleven Alaskan Rivers"); various laws, regulations, and policy of federal, state, and local government so that the management objectives, major issues and concerns, and the management constraints can be identified and clearly defined prior to development of the Management Program.

Management Objectives

The Wild and Scenic Rivers Act requires that a national wild and scenic river be administered to protect and enhance the values which caused it to be designated, without limiting other uses that do not substantially interfere with public use and enjoyment of these values. In conformance with this requirement, the following management objectives have been established for the Gulkana National Wild River:

- Preserve the river and its immediate environment in its natural, primitive condition.
- Provide for public health, safety, and enjoyment within the river management corridor.
- Maintain or enhance resource values.
- Establish level and distribution of recreational river use.
- Establish limits on uses within the river management corridor.
- Preserve the free-flowing condition of the waters within the river corridor.
- Prevent degradation of the water quality.
- Provide for utilization of resources in a way that will leave the existing environment unimpaired for future generations.
- Protect valid existing rights and future rights granted pursuant to appropriate Federal and State laws.
- Maintain or enhance fish and wildlife habitats.

Major Issues and Concerns

The following discussion presents those major issues and concerns which were determined after public input and management evaluation to be important to the development of "Part III, The Management Program."

ITEM 1 - SURFACE TRANSPORTATION

Issue: What access routes and types of vehicle use can be allowed within the wild river corridor?

Situation

Present and past vehicle use within the river corridor has not caused significant surface disturbance. The principal use is by recreationists with off road vehicles snow machines, and boats with motors to gain access to the river corridor for trapping, hunting, and fishing. Easy access from the Richardson Highway facilitates this type of vehicle use.

Considerations

- ANILCA allows for the construction of new transportation systems in and across components of the National Wild and Scenic River system provided certain requirements are met (ANILCA Sections 1104-1107).
- Subject to reasonable regulations that protect the natural and other values of the river corridor, ANILCA provides for: 1) the use of snow machines, motorboats, and non-motorized surface transportation methods for traditional activities; and 2) assures adequate and feasible access for economic and other purposes to State or privately owned land or a valid mining claim which is located across a conservation system unit (ANILCA Section 1110).
- The Wild and Scenic River Act states that wild rivers are generally inaccessible except by trail (WSRA Section 2).
- Public comment received indicates general opposition to the construction of new transportation systems within the river corridor.
- The use of motorized equipment within and through the wild river corridor detracts from its primitive character, causing deterioration of the scenic quality, disturbance of wildlife habitat and behavior, and increased soil erosion leading to diminished water quality.

- Degraded water quality impairs the biological productivity of the river and negatively impacts the natural scenic expectations of the wild river users.

ITEM 2 - AIRCRAFT USE

Issue: Should aircraft use be permitted within the wild river corridor?

Situation

Current use of aircraft within the wild river corridor is limited as there are no existing airstrips. Occasionally, aircraft will land on Dickey Lake, Canyon Lake, and the lakes at the headwaters of the West Fork Gulkana River for the purpose of transporting fishermen, float-boaters, and hunters.

Considerations

- Aircraft landing at Dickey Lake, Canyon Lake, and the lakes at the head waters of the West Fork Gulkana River provide feasible access for float-boaters, fishermen, and hunters.
- The Gulkana River is quite narrow and there are no sand and gravel bars suitable for safe aircraft operation.
- Public comment indicates general opposition to the construction of airstrips within the river corridor.
- Subject to reasonable regulations that protect the natural and other values of the river corridor, ANILCA provides for the use of airplanes for traditional activities (ANILCA Section 1110).

ITEM 3 - SUBSISTENCE

Issue: How will management of the wild river corridor affect traditional subsistence activities?

Situation

Subsistence uses include the taking of moose, caribou, fish, furbearers, small game and firewood.

Considerations

- There are no saw timber stands of sufficient volume and accessible enough to provide a feasible source of logs for local sawmills and markets.
- Improper timber cutting will diminish the primitive qualities for which the river was selected and designated and which the river users are seeking.
- The timber resources within the wild river corridor may provide firewood and house logs for people living adjacent to it.
- Trapping is a traditional use of the river corridor and provides a needed income for people living in the area.
- Excessive trapping can diminish the furbearer populations of the river and compromise the wildlife qualities for which the river was selected and designated and which the river users are seeking.
- The Alaska Department of Fish and Game has the responsibility for managing most fish and wildlife resources. They will continue to regulate trapping activities.
- ANILCA allows for and protects local subsistence use on public lands in Alaska (ANILCA Section 801-811).

ITEM 4 - HUNTING AND FISHING

Issue: Will management under the national wild river designation alter hunting and fishing use?

Situation

Substantial growth of sport fishing for salmon has taken place on the main stem of the Gulkana River in the last decade. Also, an increasing number of people are flying in each year to fish for rainbow trout at Canyon Rapids. The Gulkana River grayling sport fishery is the second largest grayling fishery in the state. Occasionally people will float the river in the fall to hunt for moose.

Considerations

- The Wild and Scenic Rivers Act permits hunting and fishing in river systems in accordance with applicable State and Federal laws (WSRA Section 13).
- The Alaska Department of Fish and Game has responsibility for managing most fish and wildlife in Alaska, and they will continue to regulate the taking of fish and wildlife resources.

ITEM 5 - WATER QUALITY

Issue: Should the water quality of the river be allowed to change?

Situation

The Gulkana River provides fish for sport, commercial, and subsistence use. It is the most heavily sport fished stream in the Copper River drainage and is a popular stream for other recreational uses.

Considerations

- Allowing the water quality of the Gulkana River to diminish would impair the biological productivity of the fisheries habitat.
- Decreased water quality would have negative impacts on the natural scenic expectations of the wild river users.
- The Wild and Scenic Rivers Act provides that the agency managing a component river of the National Wild and Scenic Rivers System will cooperate with State agencies in maintaining or improving the water quality (WRSA, Section 12).

ITEM 6 - MINERAL DEVELOPMENT

Issue: How can mineral development be managed to minimize adverse effects on the resource values for which the river was designated?

Situation

At present, only small scale placer exploratory work has occured on mining claims along a tributary of the Middle Fork Gulkana River. However, if these claims are developed, the result could be an increase in water turbidity and a reduction in the scenic values normally associated with a wild river. Since past attempts to recover the small amount of gold contained in the gravel in this area were abandoned because the work was not profitable, the potential problems will most probably not occur.

Considerations

- The valid existing rights of mining claimants are protected by law.
- Implementation of regulations will increase the cost and time required to develop mining claims.

- Approved Plans of Operations are required for all mining operations and related activities in accord with 43 CFR 3809.

- The WSRA was established to protect certain values, including the scenic quality, water quality, recreational values, and fish and wildlife values. To this end, both the WSRA (Sections 9 and 10) and ANILCA (Section 606) require that mining claims, mineral leases, or mineral rights-of-way affecting the river corridor be subject to regulations to minimize adverse effects on these values.

- Unregulated mining activities could degrade the scenic qualities of the wild river corridor. Wild rivers are to be managed to represent vestiges of primitive America.

- Lands within one-half mile of the bank of any river designated as a wild river have been withdrawn, subject to valid existing rights, from all forms of new appropriation under the mining laws by Section 606 of ANILCA.

ITEM 7 - FACILITIES

Issue: Will management facilities be permitted within the wild river corridor boundary?

Situation

Presently there is a developed campground at the put-in and one at the take-out, two toilets elsewhere within the wild river corridor, portage warning signs, and a boardwalk over the portage.

Considerations

- Man-made facilities can diminish the scenic qualities of the wild river corridor and negatively impact the natural scenic expectations of the wild river users. Caution must be used in placement and design of facilities.

- Toilets are needed at various locations in the river corridor to preclude health hazards. If they are not provided the scenic qualities and water qualities of the river corridor would be degraded.

- The portage warning signs provide the river users ample opportunity to pull over to shore to be able to portage around Canyon Rapids.

- The boardwalk over the portage provides a safe and easy walkway for the river users to portage their gear. It eliminates soil erosion problems which would diminish the water quality of the river.

- The developed campground and parking areas at the put-in and take-out points provide needed access for the river users.
- The Sourdough Campground and Boat Launch is operated by the BLM on State land under a management agreement with the State.
- Interpretative information boards at the put-in add to the enjoyment and safety of river users.
- Maintenance of existing facilites is required.

ITEM 8 - VISITOR MANAGEMENT

Issue: How will public use of the wild river corridor be managed?

Situation

The Gulkana River, because of its accessibility by highway, its primitive character, wildlife, and excellent fishery, has become an extremely popular river. Its popularity has resulted in increasing recreational use. The present level of use is estimated to be 13,000 user days by private and commercial floaters and motorized boat users. No unacceptable changes to the river corridor are apparent at this level of use.

Considerations

- Increasing numbers of users can cause significant surface disturbance. This disturbance may result in a loss of the primitive character of the increased soil erosion, leading to diminished water quality along with impaired biological productivity.
- The number of parking spaces available at the put-ins and take-outs, the number of people that can use the portage concurrently, and the number of existing and potential campsites in the river corridor is limited. Parking space is needed at Paxson Lake Campground.
- Commercial river guides and outfitters provide a means for people to experience a river trip that they would not be able to otherwise accomplish.
- Large numbers of people on the river at the same time could diminish the primitive quality for which the river was designated and which the river users are seeking.
- Use of a national wild river must be managed to protect those values which caused the river to be designated a component of the National Wild and Scenic Rivers System. The amount and type of use must comply with the Wild and Scenic Rivers Act and ANILCA.

- Competitive events in the wild river corridor could diminish the primitive quality for which the river was designated.

- Minimum-impact camping techniques allow a group to use a campsite in a manner that leaves the least impact on a campsite and the river corridor.

ITEM 9 - HISTORIC AND ARCHEOLOGICAL RESOURCES

Issue: How will the historic and archeological values within the wild river corridor be identified and protected?

Situation

The first 10 miles of the Middle Fork Gulkana River are within the Tangle Lakes Archeological District and many known prehistoric archeological sites are located within the designated wild river area. Cultural resources dating from 1910 when the West Fork and Middle Fork were routes to reach the Denali Mining District can be found within the river corridor. Most of the wild river corridor has not been inventoried for cultural resources.

Considerations

- Protection or excavation of cultural sites that are being affected by people in the wild river corridor will preserve this important information for future generations.

- Disturbance of cultural sites would diminish the historic and archeological qualities for which the river was designated.

- Interpretation of the cultural resources of the wild river corridor will help to provide the public with an awareness of the importance of these resources and their susceptibility to damage. It will increase visitors' enjoyment of the river corridor.

- The Antiquities Act, the National Historic Preservation Act of 1966, and the Archeological Resource Protection Act of 1979 are three major acts which require BLM to protect cultural resources on public lands.

ITEM 10 - FIRE MANAGEMENT

Issue: Should an attempt be made to control or manage fire within the wild river corridor?

Situation

In the past two decades there have been no major fires within the wild river corridor. An interagency fire management plan that includes the river corridor is being drafted for Southcentral Alaska. Fire protection and suppression for the river corridor is the responsibility of BLM, but under a cooperative agreement the State is responsible for fire suppression in this area.

Considerations

- The boreal forest is a fire-dependent ecosystem which has evolved in association with fire and will lose its character, vigor, and faunal and floral diversity if fire is totally excluded.
- Although fire has an essential ecological role, it also has destructive potential in relation to human life and values, and can alter water quality.
- The long term effect of fire on scenery is primarily beneficial but its short term effect can be adverse in areas of high visual sensitivity.
- Many fires in Alaska are caused by people using open camp fires at times when fire danger is high, and by not extinguishing their camp fires when they leave.
- Prescribed burns play an important role in wildlife habitat managment by providing browse on moose winter range (Gulkana River Habitat Management Plan, 1981).

ITEM 11 - STATE AND PRIVATE LAND

Issue: Will the use of State, Native, and other private lands adjacent to the wild river boundaries be subject to Federal management?

Situation

Non-Federal lands adjacent to the boundary of the river corridor include four parcels of private land totaling 94 acres and two 160-acre Native allotments, one of which is located at the outlet of Paxson Lake. The State has selected all of the land on both sides of the main stem of the Gulkana River from Paxson Lake downriver to Sourdough. However, since most of this area was not available for selection at the time the river corridor was designated a component of the wild and scenic rivers system by ANILCA, the State will only receive validly selected land located outside the final river corridor boundary.

Considerations

- The river corridor boundary is not to include State lands nor may it extend around any private lands adjoining the river in such a manner as to surround or effectively surround them (ANILCA Section 606).

- If 50 percent or more of the entire acreage within the wild river corridor is publicly owned, the Federal Government is not allowed to acquire fee title to any lands by condemnation (WSRA Section 6).

- ANILCA states that the Secretary may seek cooperative agreements with the owners of non-Federal land adjoining the river to assure that the purpose of designating the Gulkana River as a national wild river is served to the greatest extent feasible (ANILCA Section 605).

ITEM 12 - BIOTIC RESOURCES

Issue: How will the biotic resources within the wild river corridor be managed to ensure that these values are protected for the benefit and enjoyment of present and future generations?

Situation

Thirty-three species of mammals and 59 species of birds have been observed along the river. Trumpeter swans nest and rear their young in many of the lakes within the river corridor. Many active Bald Eagle nests are located within the wild river boundaries. Eleven species of fish are known to inhabit the Gulkana River. It is the most heavily sport fished stream in the Copper River drainage.

Considerations

- People camping near active Bald Eagle nests may have an adverse effect on the eagles.

- The Bald Eagle Protection Act of 1940 protects eagles and their nests and eggs from disturbance.

- Float plane access use of the lakes at or near the headwaters of the West Fork Gulkana River may disturb the nesting trumpeter swans.

- Foot traffic and campsite use has affected soil and vegetation at the portage and at undeveloped campsites within the river corridor.

- Allowing the water quality of the Gulkana River to change could impair the biological productivity of the fisheries habitat.

ITEM 13 - SCENIC QUALITY

Issue: How will the scenic quality of the landscape within or adjacent to the wild river corridor be protected?

Situation

The Gulkana River flows through an area where the natural scenic character shows only isolated evidence of man's activity. It offers many aspects of nature; wild flowers, a variety of birds and animals, and occasionally views of spectacular mountains and glaciers in the distance.

Considerations

- The Wild and Scenic Rivers Act states that the wild river corridor should be essentially undisturbed by man and accessible only by trail (WSRA Section 2).
- River users expect the natural scenic character will remain.
- Facilities that protect the safety and health of the public and that also protect natural resource values can be constructed.

ITEM 14 - PIPELINE AND ELECTRICAL TRANSMISSION

Issue: Will pipelines or electrical transmission facilities be permitted within the wild river corridor?

Situation

The Trans-Alaska oil pipeline, which was completed in 1977, crosses the Gulkana River on an elevated bridge approximately one-half mile upriver from Sourdough Campground.

Considerations

- Pipelines and utility lines may cause highly adverse damage to the visual resources.
- ANILCA allows for pipeline and utility systems that traverse any wild river, provided certain requirements are met (ANILCA Section 1105).

ITEM 15 - OIL AND GAS DEVELOPMENT

Issue: How will oil and gas exploration and development be affected by the wild river corridor?

Situation

The Denali/Tiekel amendment to BLM's Southcentral Management Framework Plan resulted in a Public Land Order (PLO 6329) which opened most of the land adjacent to but not within the river corridor for mineral location and oil and gas exploration under the United States mining and mineral leasing laws. However, the potential for commercial deposits of oil and gas in the area around the river corridor is considered to be low.

Considerations

- Oil and gas development may cause highly adverse damage to the visual and biological resources for which the river was designated.
- The Wild and Scenic Rivers Act states that wild rivers shall be free of impoundments, with watersheds and shorelines essentially primitive, and represents vestiges of primitive America (WSRA Section 2).
- ANILCA (Section 606) amended WSRA (Section 9) to withdraw minerals in Federal lands within one-half mile of a wild river in Alaska from all forms of appropriation under the mining laws and mineral leasing laws.

ITEM 16 - NAVIGABILITY

Issue: Is the Gulkana National Wild River navigable and if so, how does this affect its management?

Situation

The lower section of the Gulkana River from its confluence with the Copper River upriver to Sourdough has been determined non-navigable by BLM. Based upon that determination, this plan was developed on the premise that the Gulkana National Wild River is non-navigable. However, the State of Alaska is seeking a legal determination in the courts.

Considerations

- The Wild and Scenic Rivers Act provides BLM the opportunity to enter into a cooperative agreement with the State of Alaska for their participation in administering the wild river corridor (WRSA Section 10).

ITEM 17 - HEADWATERS OF THE SOUTH BRANCH OF THE WEST FORK

Issue: How should the 15 miles of floatable water upstream of the designated portion of the south branch of the West Fork Gulkana River be managed?

Situation

It has been established through field investigation that the start of the designated river corridor on the south branch of the West Fork Gulkana River is not the actual start of the floatable section of this river. The south branch of the West Fork can actually be floated from two separate lakes 15 miles upstream from the lake identified as the start of the river corridor.

Considerations

- That 15-mile section of the south branch of the West Fork upstream of the start of the designated wild river corridor contains the wildest stretch of river on the entire Gulkana River System.
- There are no roads, trails, or non-Federal land along this stretch of river.
- This 15 mile stretch of river meets all the criteria for a wild river as defined in the WSRA.
- Section 103(b) of ANILCA allows the Secretary of the Interior to make boundary adjustments on wild and scenic rivers up to 23,000 acres.
- About 9,000 acres, which would include this 15-mile stretch of the south branch of the West Fork, could be added to the Gulkana National Wild River without affecting any non-Federal land.

ITEM 18 - WATER RIGHTS

Issue: Does the assignment of water rights by the State of Alaska to individuals within the Gulkana National Wild River watershed conflict with the intent of the WSRA relative to preserving the freeflowing condition of the waters? What quantity of water in the Gulkana River is necessary to satisfy the requirements of ANILCA and the WSRA?

Situation

Water rights within the Gulkana River watershed can be assigned to individuals by the State of Alaska. Carried to an extreme, such an allocation has the potential for reducing the free-flowing water levels within the river corridor

below those required for recreation, wildlife, fisheries or for other purposes. The WSRA created a Federal reserved water right for the unappropriated waters in the Gulkana River system. The volume of water necessary to fulfill the requirements of the act has not been determined.

Considerations

- The jurisdiction of the State over waters within the river corridor may be exercised only to the extent that such jurisdiction does not impair the purposes for which the national WSR was established (WSRA Section 13).

- Reservations on available surface water have the potential to reduce the quantity of water for recreation and other purposes.

Management Constraints

Constraining factors which, because of law, policy, regulation or circumstance, influenced the development of the management program presented in part III include:

- The provisions of the WSRA, ANILCA, the Federal Land Policy and Management Act, the National Environmental Protection Act, the 1872 Mining Law (as amended), the Alaska Statehood Act, the National Historic Preservation Act, and the Archeological Resources Protection Act. These and other laws provide a framework for the regulations and policy that direct the decision process leading to management actions.

- The existing situation, to include: past and present uses of the area by man; agency capability for management of the resources and resource users; the resources of the region; existing BLM management plans for this area; a Memorandum of Agreement between the Advisory Council on Historic Preservation, the BLM, and the Alaska State Historic Preservation Officer; and funding to hire summer employees to work in remote areas.

- The existing management responsibilities of the State of Alaska which include fish and game management, surface water quality, and the public needs in the area.

PART III - THE MANAGEMENT PROGRAM

The following management actions are the result of a careful evaluation of the objectives, issues and concerns, and constraints discussed in Part II of this report. Every reasonable attempt has been made to accommodate the concerns of the various user groups without compromising the values for which the river was designated. This management program will be evaluated periodically to determine what, if any, changes are necessary to insure the continued protection of the river's values.

Management Actions

ITEM 1 - SURFACE TRANSPORTATION

Action 1.1: New roads, highways, railroads, and similar systems of overland transporation will generally not be permitted within or across the wild river corridor.

Discussion

Before such a system will be authorized, a determination must first be made that it would be compatible with the purposes for which the national wild river was established, and that there is no economically feasible and prudent alternative route or location (ANILCA 1105).

Any authorized transportation system will be located and constructed in an environmentally sound manner and in a manner that does not interfere with or impede stream flow or transportation on the river. Locations and construction techniques will be selected to minimize adverse effects on subsistence, scenic, recreational, fish and wildlife, and other values of the river area (WSR Guidelines, 1982, and ANILCA, Section 810).

Action 1.2: Non-motorized surface transportation methods within the river corridor will be permitted without specific authorization for traditional activities and for travel to and from private land.

Discussion

This authorization is subject to reasonable conditions to protect the natural and other values of the river corridor (such as crucial wildlife habitat).

Action 1.3: The use of motorized equipment within the wild river corridor will be limited to the following situations:

- Off-road vehicles may be operated on certain existing trails in accord with existing off-road vehicle designation for Tangle Lakes Archeologic District, and on all other ORV trails outside the District.

- When parked within the wild river corridor, ORVs will be required to be parked out of sight of river users.

- Owners of valid mining claims and their employees may use motorized equipment to carry out their mining activities in accord with 43 CFR 3809 and the off-road vehicle designation.

- Snowmachines may be used from October 15th through April 15th.

- Existing use of motorized boats is limited to the West Fork and to the lower Gulkana River downstream from a point 1 mile upstream from its confluence with the West Fork until August 15th of each year. After that date, the use of motorized boats is allowed on the entire Gulkana River system.

- Motorized transportation or earth-moving equipment may be used for fire suppression and rescue work if approved by the Area Manager.

Discussion

Most mining claims are valid. Snowmachine use between the listed dates is in accord with the Tangle Lakes off-road vehicle designation. Prohibiting snowmachine use during the winter would affect the income of several trappers. At this time there is no known use of the wild river corridor in winter other than by trappers. Allowing use of motorized boats on the entire river system after August 15th allows for access to hunting areas, while it reduces conflicts with floaters during the period of high use of non-motorized boats. The operation of motorized equipment that becomes a safety hazard or that affects other users detrimentally may be limited or prohibited.

Action 1.4: The Bureau will work cooperatively with the State of Alaska to identify all rights-of-way claimed pursuant to RS2477 within the river boundaries for administrative purposes.

Discussion:

When rights or title are granted directly by statute, such as RS2477, the Bureau cannot adjudicate these rights. However, for the purposes of carrying out the Bureau's administrative duties, a determination may be made. Such a determination would not affect the legality of an RS2477 right-of-way, but would provide a basis for administrative actions such as acceptance of right-of-way applications or trespass actions.

ITEM 2 - AIRCRAFT USE

Action 2.1: Aircraft operations in the river corridor for traditional float plane use on lakes, for fire and rescue operations, and on traditional tundra landing areas is allowed except for use of the water surface of any part of the Gulkana River within the designated corridor.

Discussion

The Gulkana River is too narrow for safe aircraft operation. Use of the river for operating aircraft poses dangers for river users. Existing use is considered to be compatible with the values of the national wild river and provides needed access. No new airstrips will be constructed.

ITEM 3 - SUBSISTENCE

Action 3.1: Subsistence use of timber for fuelwood and house logs is allowed by permit.

Discussion

The Area Manager, by individual permit, may allow the removal of timber subject to reasonable stipulations to protect the natural and other values of the national wild river (ANILCA Title VIII). Commercial logging is not allowed.

Action 3.2: Trapping within the wild river corridor is permitted, subject to State and Federal regulations.

Discussion

Trapping is a traditional winter subsistence use of the river corridor and with proper management can continue without affecting the integrity of the Gulkana National Wild River.

ITEM 4 - HUNTING AND FISHING

Action 4.1: Hunting and fishing is permitted, subject to applicable State regulations.

Discussion

These uses are in accord with the Wild and Scenic Rivers Act. The Alaska Department of Fish and Game has the authority to manage most fish and wildlife in Alaska (WSRA Section 13). They will continue to regulate commercial and recreational use of fish and wildlife resources.

ITEM 5 - WATER QUALITY

Action 5.1: All use authorizations will include measures to control water pollution.

Discussion

Using accepted techniques, the user must make every reasonable attempt to achieve established water quality standards for both water discharge and sewage disposal.

Action 5.2: BLM will cooperate with the Alaska Department of Environmental Conservation, and where appropriate, the U.S. Environmental Protection Agency, for the purpose of preventing, eliminating, or diminishing the pollution of river water levels consistent with the Federal Clean Water Act of Federally Approved State Water Quality Standards.

ITEM 6 - MINERAL DEVELOPMENT

Action 6.1: The plan approval process for mining operations within the river corridor as outlined in the approved FLPMA land use plan for this area will be carried out in a timely and efficient manner.

Discussion

Regulations under 43 CFR 3809 emphasize the right of miners to carry out their operations in a reasonable manner. Prompt action on requests could help eliminate or reduce violations of these restrictions. Regulations require a plan of operation for all mining work performed within the boundary of a WSR. These plans will be assessed to determine the effects upon the environment, the adequacy of the reclamation plan, and whether the proposed operations are reasonable and necessary.

ITEM 7 - FACILITIES

Action 7.1: Those man-made management facilities necessary to maintain the natural values of the river area and to provide for the health and safety of the visitors are provided and will be maintained on a scheduled basis.

Discussion

Warning and take-out signs are necessary at the portage to warn of the dangerous rapids and sweepers downstream. Toilets need maintenance to preclude health hazards. Scheduled maintenance of the support facilities (which include the campgrounds, portage, parking areas, and boat ramps) is necessary to preserve natural values and provide for visitor enjoyment. Existing facilities are adequate for the next five years if action 7.3 is accomplished.

Action 7.2: Provide interpretative information at the existing put-in at Paxson Lake Campground.

Discussion

Pertinent information on boating safety, search and rescue, historic use, fish and wildlife, and river character can add to the enjoyment and safety of river users while protecting natural resource values.

Action 7.3: Develop a separate parking area for river users within Paxson Lake Campground and re-gravel the existing parking area at Sourdough Campground take-out.

Discussion

River users are presently parking in campsite spaces at Paxson Lake Campground; this precludes their use for camping. There is sufficient space within the area to construct a parking area for river users. The existing take-out parking area at Sourdough Campground is sufficient in size, but the surface has eroded and needs additional gravel.

ITEM 8 - VISITOR MANAGEMENT

Action 8.1: Determine the amount and type of use that the Gulkana River Management Corridor can perpetually sustain without impairing its scenic and primitive character or causing an unacceptable change to the experience of the user.

Discussion

The determination of the amount and type of use is necessary to ensure compliance with the Wild and Scenic Rivers Act and ANILCA. This level of use can be estimated from a determination of the following:

- Physical carrying capacity; i.e., the amount of parking space available at put-ins and take-outs, the amount of shore space and setup area at put-ins and take-outs, the number of people that can use the portage at the same time, and the number of existing and potential campsites. This capacity can be changed by design to support the biological carrying capacity.

- Biological carrying capacity; i.e., the number of people that the various ecosystems can withstand within acceptable limits of change. The three basic ecosystems within the river management corridor are aquatic, riparian (river bank), and upland.

- Social carrying capacity, within the context of this plan, refers to the number of people that can be on the lakes and river at the same time and still enjoy a primitive experience.

Action 8.2: If necessary, set the level of use by river runners after completion of carrying capacity studies.

Discussion

The present level of use is estimated to be 13,000 user days or 3,600 people per year. The use of the Gulkana River has been increasing every year, and indications are that this trend will continue as the state's population expands and tourism increases. Use during peak days (i.e., July 4th holiday, which coincides with peak salmon fishing opportunities) appears to be reaching the limit of one or more of the carrying capacity levels.

Action 8.3: Recognize commercial use as a part of overall river use when defining an allocation system within a defined daily carrying capacity. All commercial river guides must obtain a Special Recreation Use Permit (43 CFR 8372.1-1).

Discussion

Present commercial river use is estimated to be less than 5 percent of existing use. However, the demand for this type of use is increasing. This action would provide for people who prefer to pay for a guided and/or outfitted river trip.

Action 8.4: Encourage a reduced party size on river runner groups through standard public information methods.

Discussion

A reduced party size would accommodate most groups seeking a primitive experience on the Gulkana River. A large group would affect the primitive quality of a river experience for groups they might meet.

Action 8.5: Establish no controls on launch frequency at this time.

Discussion

There is no foreseeable need to limit launch frequency. All comments received concerning launch frequency opposed setting limits.

Action 8.6: Competitive events in the wild river corridor generally will not be allowed, but may be considered by the Area Manager upon a showing of no impact.

Discussion

Events of this nature are generally out of place in a primitive setting. That stretch of the Gulkana River below Sourdough or other rivers could be used for events of this nature.

Action 8.7: Promote the use of minimum-impact camping techniques through the use of standard public information methods.

Discussion

Use of these camping techniques allows a group to use a campsite in a manner that leaves the least impact on the campsite. Minimum impact camping is a function of attitude and awareness rather than one of rules and regulations.

Action 8.8: Visitor information for the Gulkana National Wild and Scenic River will be developed in brochures which will be available at BLM offices on request.

Discussion

Use on the Gulkana River is estimated to be near its carrying capacity on some days. BLM brochures are a common method of informing the public about special management areas such as this. No additional techniques are proposed to publicize the river.

ITEM 9 - HISTORIC AND CULTURAL RESOURCES

Action 9.1: Surface-disturbing projects within the wild river corridor that are also within the Tangle Lakes Archeological District will not be allowed on archeological sites without implementing the cultural resource protection actions as outlined in 36 CFR subpart 800.

Discussion

The National Historic Preservation Act of 1966 provides that cultural resources must be a "consideration." National Register status and Wild and Scenic River designation provide a cultural resource with protection. In this case consideration and protection can be accomplished by preventing disturbance of

archeological sites at this planning level. Proposed surface disturbing activities will require cultural resource inventory throughout the corridor, and significant historic sites will be avoided or mitigated as appropriate.

Action 9.2: Provide cultural resource interpretation information at Paxson Lake Campground.

Discussion

Interpretation of cultural resources of the river corridor will help to provide the public with an awareness of the importance of these resources and of their susceptibility to damage. It will increase the enjoyment of visitors to this area.

ITEM 10 - FIRE MANAGEMENT

Action 10.1: Wildfires within the wild river corridor will be suppressed in compliance with BLM policy, which calls for limited or modified fire protection. A fire management plan, soon to be completed, will provide details and fire management strategy.

Discussion

A fire management plan is being drafted for Southcentral Alaska in cooperation with other Federal agencies and agencies of the State of Alaska, as well as private land owners. Prescribed burns play an important role in wildlife habitat management by providing browse on the moose winter range.

Action 10.2: Prohibit open fires within the river corridor during periods of extreme fire danger.

Discussion

Many fires in Alaska are caused by people using an open camp fire at times when fire danger is high. Prohibiting use of such fires during periods of extreme fire danger will reduce the possibility of wildfires.

ITEM 11 - STATE AND PRIVATE LAND

Action 11.1: A cooperative management agreement with the State of Alaska will be developed, if necessary, to manage any navigable water bodies and their beds adjacent to the river corridor.

Discussion

If any part of the Gulkana Wild River is determined to be navigable, the State would own the beds of these waterbodies within their ordinary high water marks. A management agreement with the State for the Gulkana River should consider (1) use of the waterbody, (2) mining claims on State land, (3) use of the land within the ordinary high water marks of navigable waters (4) water quality, (5) instream water rights, (6) guidelines for visitor management, and (7) other considerations necessary for sound management of the Gulkana Wild River.

Action 11.2: Develop a cooperative management agreement with Native and other private land owners for the management of private land that adjoins the wild river boundary if necessary, or purchase these lands from willing sellers.

Discussion

A cooperative agreement would ensure that the lands adjacent to the wild river are managed in accordance with the management of the wild river. Purchase in fee or by scenic easement of private land from willing sellers could help to avoid possible future management problems.

ITEM 12 - BIOTIC RESOURCES

Action 12.1: Protect raptors (particularly bald eagles), raptor eggs, nesting trees, and eyries from destruction or harassment.

Discussion

Action will be taken to comply with the Bald Eagle Act of 1940 as amended and the Endangered Species Act of 1973 as amended. Raptor nest sites within the designated area will be located as determined necessary. Buffer zones will be established around each nest to prevent harassment or disturbance.

Action 12.2: Protect existing waterfowl breeding, nesting, brooding and molting habitat.

Discussion

Lesser Canada geese, trumpeter swans, and other waterfowl nest along the Gulkana River system and on many of the lakes and potholes within the wild river boundaries. No identified need for waterfowl habitat improvement in the area is known at the present time, though protection of existing values is warranted.

Action 12.3: Develop a soil-surface monitoring program designed to quantify soil and vegetation disturbance associated with recreation use.

Discussion

Foot traffic and campsite use has affected soil and vegetation at the portage and at campsites. Some erosion has occurred at these sites. Quantifying these disturbances can help influence positive management direction.

Action 12.4: Maintain the existing fisheries habitat by maintaining the existing water quality and quantities. (This action is dicussed under item 5, Water Quality.)

ITEM 13 - SCENIC QUALITY

Action 13.1: Manage the Gulkana River corridor as it exists and protect natural scenic characteristics by only allowing that development on public lands that is compatible with established wild river policies.

Discussion

This action is in accordance with management guidelines for wild sections of wild and scenic rivers. It provides primarily for natural ecological changes. However, it does not preclude limited management that aids in maintaining natural resource values.

ITEM 14 - PIPELINE AND ELECTRICAL TRANSMISSION

Action 14.1: New pipelines and electrical transmission lines will not be permitted within or across the wild river corridor unless conditions of ANILCA Section 1105 and the WSRA are met.

Discussion

Before any such utility line will be authorized, a determination must first be made that it would be compatible with the purposes for which the national wild river was established, and that there is no economically feasible and prudent alternate route or location (ANILCA 1105, WSRA).

ITEM 15 - OIL AND GAS DEVELOPMENT

Action 15.1 - Action 6.1 concerning mineral development also applies for oil and gas development.

ITEM 16 - NAVIGABILITY

This issue was addressed in Item 11, State and Private lands, under Action 11.1 which provides for a management agreement with the State.

ITEM 17 - HEADWATERS OF THE SOUTH BRANCH OF THE WEST FORK

Action 17.1: The BLM will initiate action to add the uppermost 15 miles of the south branch of the West Fork to the designated Gulkana National Wild River. In the interim the BLM will manage this stretch of river in the same manner as the designated sections of the Gulkana National Wild River system, insofar as existing authority allows.

Discussion

This 15-mile stretch of river meets all the requirements for a "wild" river as defined in the WSRA and is in fact the wildest stretch on the Gulkana River system. The Secretary of Interior is allowed by Section 103(b) of ANILCA to adjust the boundaries of a Wild and Scenic River up to 23,000 acres. An adjustment of about 9,000 acres is needed to include this floatable 15-mile stretch of the south branch within the designated wild river corridor.

ITEM 18 - WATER RIGHTS

Action 18.1: A reservation of minimum water flows sufficient for public recreation and to support the values for which the area was designated will be determined in cooperation with the Alaska Department of Natural Resources, Division of Land and Water Management.

Discussion

The jurisdiction of the State over waters within the Gulkana National Wild River watershed shall not be affected by the designation to the extent that such jurisdiction may be exercised without impairing the purposes for which the national wild river was established (WSRA Section 13).

This plan will be considered a dynamic management tool and will be subject to future revisions.

PART IV - APPENDIX

The legal description are based on the unsurveyed 1 inch = 1 mile scale boundary maps appended to this river management plan. In case of discrepancy, these maps will control.

Legal Description

Lands included within wild, scenic, and recreational river boundaries.

WILD RIVER BOUNDARIES

Copper River Meridian

T. 9 N., R. 2 W.	Unsurveyed
Section 4	All
Section 5	E½, SW¼, E½NW¼
Section 6	S½, S½NW¼
Section 7	N½, SE¼
Section 8	All
Section 9	All
Section 10	S½, S½N½
Section 11	SW¼, S½NW¼
Section 13	W½SW¼, SW¼NW¼
Section 14	S½, NW¼, S½NE¼
Section 15	All
Section 16	N½, N½S½
Section 17	NE¼, N½NW¼
Section 22	NE¼
Section 23	N½, SW¼, N½SE¼
Section 24	W½NW¼, NW¼SW¼
Section 25	NW¼NW¼, SW¼SW¼
Section 26	All
Section 35	N½NE¼, NE¼NW¼
Section 36	NW¼NW¼
T. 9 N., R. 3 W.	Unsurveyed
Section 1	S½, S½N½
Section 2	S½, S½N½
Section 3	All
Section 4	All
Section 5	All
Section 6	All
Section 7	All
Section 8	N½
Section 9	N½N½
Section 10	N½
Section 11	N½
Section 12	N½
T. 9 N., R. 4 W.	Unsurveyed
Section 1	All
Section 12	N½N½

The legal description are based on the unsurveyed 1 inch = 1 mile scale boundary maps appended to this river management plan. In case of discrepancy, these maps will control.

WILD RIVER BOUNDARIES, continued

T. 10 N., R. 2 W.	Unsurveyed
Section 5	W½NW¼, NW¼SW¼
Section 6	N½, N½S½
Section 19	W½
Section 28	S½
Section 29	All
Section 30	All
Section 31	N½
Section 32	N½, SE¼, E½SW¼
Section 33	All, excluding 5 acres patented land
T. 10 N., R. 3 W.	Unsurveyed
Section 1	All
Section 2	E½, SE¼
Section 11	All
Section 12	NW¼
Section 13	W½
Section 14	All
Section 23	N½, SE¼
Section 24	All
Section 25	N½SE¼N½SW¼
Section 31	All
Section 32	All
Section 33	S½
Section 34	SW¼
T. 10 N., R. 4 W.	Unsurveyed
Section 7	S½S½
Section 16	SW¼
Section 17	S½, NW¼
Section 18	All
Section 19	N½, SE¼
Section 20	All
Section 21	All
Section 22	S½, NW¼, SW¼NE¼
Section 25	S½, S½N½
Section 26	All
Section 27	All
Section 28	N½, N½SE¼, NE¼SW¼
Section 29	N½N½, SE¼NE¼
Section 34	NE¼, NE¼NW¼
Section 35	N½, N½SE¼, SE¼SE¼
Section 36	All

The legal description are based on the unsurveyed 1 inch = 1 mile scale boundary maps appended to this river management plan. In case of discrepancy, these maps will control.

WILD RIVER BOUNDARIES, continued

T. 10 N., R. 5 W.	Unsurveyed
Section 7	S½, S½
Section 9	SW¼
Section 10	SE¼, S½SW¼
Section 11	S½
Section 12	S½
Section 13	All
Section 14	All
Section 15	All
Section 16	All
Section 17	All
Section 18	N½, SE¼, N½SW¼
Section 20	N½NE¼
Section 21	N½,N½
Section 22	N½NW¼, NW¼NE¼
Section 24	N½
T. 10 N., R. 6 W.	Unsurveyed
Section 1	W½
Section 2	All
Section 3	NE¼
Section 7	All
Section 8	All
Section 9	All
Section 10	All
Section 11	All
Section 12	All
Section 13	N½
Section 14	N½
Section 15	N½
Section 16	N½
Section 17	NE¼, N½NW¼
Section 18	N½N½
T. 10 N., R. 7 W.	Unsurveyed
Section 11	All
Section 12	All
Section 13	N½N½
Section 14	N½N½
T. 11 N., R. 2 W.	Unsurveyed
Section 3	All
Section 4	All
Section 5	E½, E½W½
Section 8	NE¼NE¼

The legal description are based on the unsurveyed 1 inch = 1 mile scale boundary maps appended to this river management plan. In case of discrepancy, these maps will control.

WILD RIVER BOUNDARIES, continued

Section 9	E½, E½NW¼, NW¼NW¼
Section 10	All
Section 11	SW¼
Section 14	W½
Section 15	All
Section 16	E½E½
Section 21	E½, S½SW¼
Section 22	All
Section 23	W½
Section 27	All
Section 28	All
Section 29	E½, SW¼
Section 30	S½S½
Section 31	All
Section 32	All
Section 33	N½N½
Section 34	N½N½
T. 11 N., R. 3 W.	Unsurveyed
Section 36	S½, NE¼
T. 11 N., R. 6 W.	Unsurveyed
Section 17	S½SW¼
Section 18	SW¼, S½NW¼, S½SE¼
Section 19	N½, SE¼, N½SW¼
Section 20	All
Section 21	S½, S½N½
Section 22	S½, S½NW¼
Section 23	SW¼, W½SE¼
Section 26	W½, W½E½
Section 27	All
Section 28	NE¼, N½NW¼
Section 29	N½N½
Section 30	NE¼NE¼
Section 34	E½, NE¼NW¼
Section 35	All
Section 36	SW¼
T. 11 N., R. 7 W.	Unsurveyed
Section 7	S½
Section 8	S½S½, NW¼SW¼
Section 9	S½S½
Section 10	S½S½
Section 11	S½SW¼, SW¼SE¼

The legal description are based on the unsurveyed 1 inch = 1 mile scale boundary maps appended to this river management plan. In case of discrepancy, these maps will control.

WILD RIVER BOUNDARIES, continued

Section 13	All
Section 14	All
Section 15	All
Section 16	All
Section 17	All
Section 18	All
Section 23	N½N½
Section 24	NE¼, N½NW¼, NE¼SE¼
T. 11 N., R. 8 W.	Unsurveyed
Section 10	SE¼, S½NE¼
Section 11	S½, S½NW¼, SW¼NE¼
Section 12	S½
Section 13	All
Section 14	N½, SE¼
Section 15	N½NE¼
Section 23	NE¼
Section 24	NW¼
T. 12 N., R. 2 W.	Unsurveyed
Section 4	SW¼
Section 5	All
Section 6	All
Section 7	All
Section 8	W½, N½NE¼
Section 9	N½NW¼
Section 17	W½
Section 18	N½, SE¼, N½SW¼
Section 19	E½
Section 20	All
Section 21	W½W½, SE¼SW¼
Section 28	W½
Section 29	All
Section 30	E½
Section 31	E½
Section 32	All
Section 33	All
T. 12 N., R. 3 W.	Unsurveyed
Section 1	All
Section 2	E½, NW¼, N½SW¼
Section 3	N½, NE¼SE¼
Section 12	N½, N½SE¼, SE¼SE¼
Section 13	E½NE¼

The legal description are based on the unsurveyed 1 inch = 1 mile scale boundary maps appended to this river management plan. In case of discrepancy, these maps will control.

WILD RIVER BOUNDARIES, continued

T. 13 N., R. 2 W.	Unsurveyed
Section 31	S½S½
Section 32	S½S½
Section 33	S½SW¼
T. 13. N., R. 3 W.	Unsurveyed
Section 17	SW¼
Section 18	S½
Section 19	All
Section 20	S½, NW¼
Section 21	SW¼, S½SE¼
Section 25	SW¼SW¼
Section 26	S½, SW¼NE¼, S½NW¼, NW¼NW¼
Section 27	All
Section 28	All
Section 29	All
Section 30	N½
Section 32	N½N½
Section 33	N½, N½S½
Section 34	All
Section 35	All
Section 36	All
T. 13 N., R. 4 W.	Unsurveyed
Section 2	SW¼SE¼, S½SW¼, NW¼SW¼
Section 3	S½, S½NW¼
Section 4	S½, NW¼, W½NE¼, SE¼NE¼
Section 5	All
Section 6	All
Section 9	N½
Section 10	All
Section 11	All
Section 12	SW¼, S½NW¼, NW¼NW¼
Section 13	All
Section 14	N½, SE¼
Section 24	N½
T. 13 N., R. 5 W.	Unsurveyed
Section 1	All
Section 12	N½, N½SW¼

The legal description are based on the unsurveyed 1 inch = 1 mile scale boundary maps appended to this river management plan. In case of discrepancy, these maps will control.

WILD RIVER BOUNDARIES, continued

T. 14 N., R. 4 W.	Unsurveyed
Section 31	S½S½
T. 14 N., R. 5 W.	Unsurveyed
Section 36	S½S½

The area as described, excluding areas between ordinary high water marks for designated streams, contains approximately 91,000 acres subject to adjustment to lines of public land surveys.

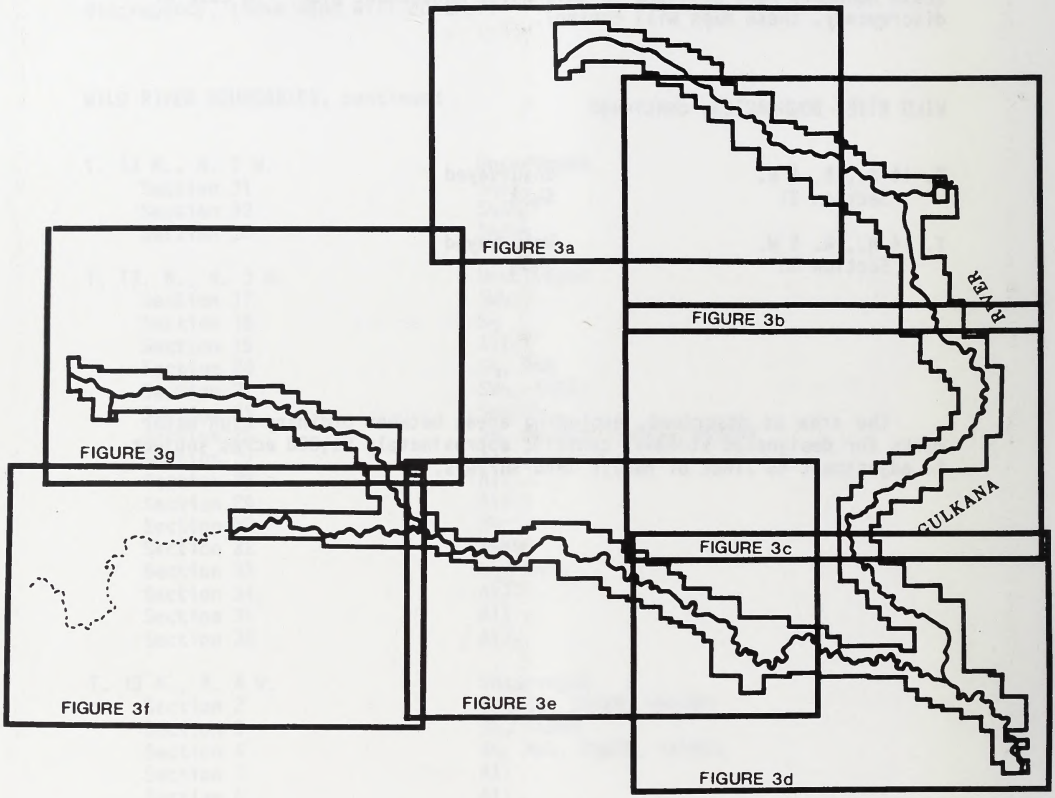

Figure 3

INDEX MAP

to Figures 3a,3b,3c,3d,3e,3f and 3g

Swede Lake Trail

Middle Fork

Gulkana

Middle Fork Trail

Dickey Lake

Mining Claims

0 Start of Middle Fork

Match with Figure 3b

T13N

T12N

R4W R3W

Figure 3a

GULKANA
Wild River Corridor Boundary

Private Land

River Miles

N

ALASKA

SCALE 1:63360

0 1 2 3 4 MILES

0 3000 6000 9000 12000 15000 18000 21000 FEET

0 1 2 3 4 5 KILOMETERS

Middle Fork Gulkana

Match with Figure 3a

Paxson Lake campground and put-in for Gulkana River

PAXSON LAKE

Start of Gulkana Wild River

0

T13N

T12N

Native Allotment

3

End of Middle Fork

32

Middle Fork Trail

Gulkana River

Meier Lake Trail

Twelvemile Creek

Match with Figure 3c

R3W R2W

Figure 3b

GULKANA
Wild River Corridor Boundary

State Selection

Private Land

River Miles

N

ALASKA

SCALE 1:63360

0 1 2 3 4 MILES

0 3000 6000 9000 12000 15000 18000 21000 FEET

0 1 2 3 4 5 KILOMETERS

Match with Figure 3b

River

20

Canyon Rapids and Portage

Haggard Creek Trail

CANYON LAKE

Gulkana

T11N

T10N

Match with Figure 3d

R3W R2W

Figure 3c

GULKANA
Wild River Corridor Boundary

Utility Corridor

State Selection

River Miles

N

ALASKA

SCALE 1:63360

0 1 2 3 4 MILES

0 3000 6000 9000 12000 15000 18000 21000 FEET

0 1 2 3 4 5 KILOMETERS

Match with Figure 3c

Match with Figure 3e

Gulkana

West Fork Gulkana River

Upstream limit for motorboats until August 15. (See Action 1,3)

39

72

End of West Fork

Sourdough Campground & Take-out

End of Gulkana Wild River

47

Trans-Alaska Pipeline

T11N
T9N

R3W R2W

Figure 3d

GULKANA
Wild River Corridor Boundary

Utility Corridor

State Selection

Private Land

River Miles

N

ALASKA

SCALE 1:63360

0 1 2 3 4 MILES

0 3000 6000 9000 12000 15000 18000 21000 FEET

0 1 2 3 4 5 KILOMETERS

Match with Figure 3g

Match with Figure 3f

Gulkana River

West Fork

Match with Figure 3d

T10N

T9N

Fish Lake

R4W R3W

Figure 3e

GULKANA
Wild River Corridor Boundary

State Selection

River Miles

N

ALASKA

SCALE 1:63360

0 1 2 3 4 MILES

0 3000 6000 9000 12000 15000 18000 21000 FEET

0 1 2 3 4 5 KILOMETERS

Stretch to be considered for additional designation as a wild river. See Action 17.1

Match with Figure 3g

West Fork Gulkana

30

End- North Branch West Fork

24

End-South Branch West Fork

0

Start-South Branch West Fork

Match with Figure 3e

T10N

T9N

R7W

R6W

Figure 3f

GULKANA
Wild River Corridor Boundary

River Miles

N

ALASKA

SCALE 1:63360

0 1 2 3 4 MILES

0 3000 6000 9000 12000 15000 18000 21000 FEET

0 1 2 3 4 5 KILOMETERS

0 Start–North Branch West Fork

West Fork

Gulkana River

T11N

T10N

R7W

R6W

Match with Figure 3e

Match with Figure 3f

MATANUSKA-SUSITNA BOROUGH

Figure 3g

GULKANA
Wild River Corridor Boundary

River Miles

N

ALASKA

SCALE 1:63360

0 1 2 3 4 MILES

0 3000 6000 9000 12000 15000 18000 21000 FEET

0 1 2 3 4 5 KILOMETERS